SAFE CLEAN WATER L.A.

County of Los Angeles

IMPERMEABLE AREA: BASIS FOR PROPOSED L.A. COUNTY PARCEL TAX

To fund implementation of stormwater capture projects and programs as part of a Safe, Clean Water Program, the LA County Board of Supervisors is considering a parcel tax on private property in the LA County Flood Control District. This tax would be based on the impermeable area for each parcel.

The following describes how impermeable area would be used to calculate this parcel tax.

Impermeable Area is parcel area covered by hardscape-like materials such as structures, asphalt, concrete, etc.

Examples: *constructed surfaces such as buildings, roofs, awnings, roadways, sidewalks, driveways, parking lots, brick, asphalt, concrete, pavers, covers, slabs, sheds, pools and fountains, and other constructed surfaces.*

Permeable area is parcel area not covered by hardscape-like materials.

Examples: *vegetated or natural areas such as grasses, bushes and shrubs, lawns, bare soil, sandy areas, tree canopy, natural water bodies, wetland areas, gravel, gardens and planters on bare soil, rocky shores, and other natural areas.*

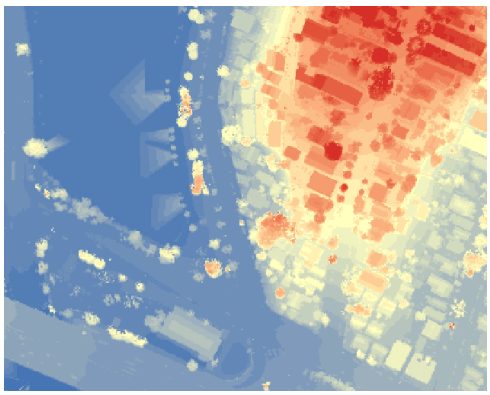
HOW IS IMPERMEABLE AREA DETERMINED?

Impermeable areas are calculated based on the latest LA County Landcover Survey, which combines several data sources and processes. The Landcover Survey is then used to estimate the total impermeable area for each parcel. These data sources and processes used in the latest LA County Landcover Survey include:

- **USDA NAIP Imagery: multi-band aerial imagery that includes Near Infrared (NIR)**
  - This data source helps to identify vegetation and differentiate soil from concrete and pavement
- **LA County LiDAR Data: a common survey mapping tool used to build a 3D model of the County**
  - Used to distinguish the ground surface from buildings, structures, trees, shrubs, and other objects.
  - Combined technology results in high-resolution, 3D maps of the region's landscape
- **LA County Orthophotography Imagery: an aerial photograph survey of the entire County**
- **Object-Based Image Analysis (OBIA): the process used to determine landcover types**
  - OBIA is an automated computer process which groups data pixels together into meaningful objects to assess color, texture, pattern, location, size, and shape to identify the landcover type.
  - A manual, detailed review was conducted after the OBIA process and all observable inaccuracies were corrected.
  - An independent accuracy assessment was conducted by the University of Vermont Spatial Analysis Laboratory which found an overall accuracy of 98% for the LA County Landcover Survey.

NAIP Imagery – False Color NIR

LA County Orthophotography



LA County LiDAR Data

APPEALS PROCESS:

Even with the combination of several data sources, processing techniques, and a manual review there is still a potential for inaccuracies. An appeals process has been developed for land owners that believe their tax amount has been calculated incorrectly.

LA COUNTY LANDCOVER SURVEY RESULTS:

The images below show an example result from the latest LA County Landcover Survey compared to aerial photography of the same location. The image is centered on Eco Park and Dodger's Stadium in the City of Los Angeles.